

CAS ONLINE PRINTOUT

=> d his

(FILE 'HOME' ENTERED AT 09:40:13 ON 20 JUN 2007)

FILE 'REGISTRY' ENTERED AT 09:40:28 ON 20 JUN 2007

E META.XYLYLENE/CN  
E XYLYLENEDIAMINE/CN

L1 1 S E3  
E .META.XYLYLENE/CN

FILE 'CAPLUS' ENTERED AT 09:42:59 ON 20 JUN 2007

E US20070088178/PN

L2 1 S E3  
SELECT RN L2 1

← xylylene diamine

FILE 'REGISTRY' ENTERED AT 09:43:31 ON 20 JUN 2007

L3 17 S E1-E17

FILE 'REGISTRY' ENTERED AT 09:47:30 ON 20 JUN 2007

L4 1 S 17300-02-6 ← meta-xylylene diamine  
L5 1 S 1477-55-0/RN ← meta xylylenediamine  
L6 1 S 872-50-4/RN ← NMP

FILE 'CAPLUS' ENTERED AT 09:50:04 ON 20 JUN 2007

L7 1462 S L2 OR L4 OR L5  
L8 203105 S QUENCH?  
L9 8 S L8 AND L7

=> d bib abs kwic 1-8

L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2005:283452 CAPLUS  
DN 142:357052  
TI Ammoxidation-hydrogenation method for producing 1,2-xylylenediamine from  
o-xylene  
IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck,  
Alexander  
PA BASF Aktiengesellschaft, Germany  
SO PCT Int. Appl., 22 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005028417	A1	20050331	WO 2004-EP9568	20040827
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10341613	A1	20050414	DE 2003-10341613	20030910
	EP 1663942	A1	20060607	EP 2004-764542	20040827
	EP 1663942	B1	20070404		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

## CAS ONLINE PRINTOUT

IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK  
CN 1849295 A 20061018 CN 2004-80026132 20040827  
AT 358665 T 20070415 AT 2004-764542 20040827  
US 2007088179 A1 20070419 US 2006-571584 20060310  
PRAI DE 2003-10341613 A 20030910  
WO 2004-EP9568 W 20040827  
OS CASREACT 142:357052  
AB A method for producing 1,2-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalodinitrile where the vaporous product of the ammoxidn. step is brought into direct contact with N-methyl-2-pyrrolidone as solvent (quench stage); and hydrogenation of the phthalodinitrile in the quench solution or suspension. A process flow diagram is presented.  
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT  
AB A method for producing 1,2-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalodinitrile where the vaporous product of the ammoxidn. step is brought into direct contact with N-methyl-2-pyrrolidone as solvent (quench stage); and hydrogenation of the phthalodinitrile in the quench solution or suspension. A process flow diagram is presented.  
IT 1477-55-0P, 1,3-Xylylenediamine 17300-02-6P,  
1,2-Xylylenediamine  
RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)  
(ammoxidn.-hydrogenation method for producing 1,2-xylylenediamine from o-xylene)  
L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2005:260013 CAPLUS  
DN 142:338160  
TI Catalytic ammoxidation-hydrogenation method for the manufacture of xylylenediamine from xylene  
IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck, Alexander  
PA BASF Aktiengesellschaft, Germany  
SO PCT Int. Appl., 29 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
FAN.CNT 8  
PATENT NO. KIND DATE APPLICATION NO. DATE  
-----  
PI WO 2005026104 A1 20050324 WO 2004-EP9885 20040904  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
DE 10341614 A1 20050428 DE 2003-10341614 20030910  
EP 1663945 A1 20060607 EP 2004-764836 20040904  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK  
CN 1849291 A 20061018 CN 2004-80026111 20040904

## CAS ONLINE PRINTOUT

	JP 2007505068	T	20070308	JP 2006-525729	20040904
	US 2007010693	A1	20070111	US 2006-569985	20060228
PRAI	DE 2003-10341614	A	20030910		
	WO 2004-EP9885	W	20040904		

OS CASREACT 142:338160

AB A method for producing o-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalodinitrile and hydrogenation of the phthalodinitrile, whereby the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalodinitrile (quench); constituents having a b.p. lower than that of phthalodinitrile (low boilers) are partially or completely separated out from the obtained quench solution or suspension or phthalodinitrile melt, and; after separating out the low boilers and before the hydrogenation, products having a b.p. higher than that of phthalodinitrile (high boilers) are separated out.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A method for producing o-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalodinitrile and hydrogenation of the phthalodinitrile, whereby the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalodinitrile (quench); constituents having a b.p. lower than that of phthalodinitrile (low boilers) are partially or completely separated out from the obtained quench solution or suspension or phthalodinitrile melt, and; after separating out the low boilers and before the hydrogenation, products having a b.p. higher than that of phthalodinitrile (high boilers) are separated out.

IT Nitriles, processes

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (aromatic, quench solvents; in a catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT Aromatic hydrocarbons, processes  
Nitriles, processes

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (quench solvents; in a catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT 17300-02-6P, o-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process) (catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT 91-15-6P, Phthalonitrile 626-17-5P, Isophthalonitrile 1477-55-0P  
, m-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent) (catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT 100-47-0, Benzonitrile, processes 872-50-4, NMP, processes 25550-22-5, Methylbenzonitrile

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (quench solvent; in a catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2005:260012 CAPLUS  
DN 142:338159

## CAS ONLINE PRINTOUT

TI Catalytic ammoxidation-hydrogenation method for the manufacture of  
xylylenediamine from xylene  
IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck,  
Alexander  
PA BASF Aktiengesellschaft, Germany  
SO PCT Int. Appl., 23 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
FAN.CNT 8

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005026103	A1	20050324	WO 2004-EP9884	20040904
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10341633	A1	20050428	DE 2003-10341633	20030910
EP 1663944	A1	20060607	EP 2004-764835	20040904
EP 1663944	B1	20070307		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1849294	A	20061018	CN 2004-80026131	20040904
JP 2007505067	T	20070308	JP 2006-525728	20040904
AT 356109	T	20070315	AT 2004-764835	20040904
PRAI DE 2003-10341633	A	20030910		
WO 2004-EP9884	W	20040904		

OS CASREACT 142:338159

AB A method for producing o-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalonitrile and hydrogenation of the phthalonitrile, where the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalonitrile (quench); constituents having a b.p. lower than that of phthalonitrile (low boilers) are partially or completely separated out from the obtained quench solution or suspension or phthalonitrile melt; and, before the hydrogenation of the phthalodinitrile, no products having a b.p. higher than that of phthalonitrile (high boilers) are separated out. Process flow diagrams are presented.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A method for producing o-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalonitrile and hydrogenation of the phthalonitrile, where the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalonitrile (quench); constituents having a b.p. lower than that of phthalonitrile (low boilers) are partially or completely separated out from the obtained quench solution or suspension or phthalonitrile melt; and, before the hydrogenation of the phthalodinitrile, no products having a b.p. higher than that of phthalonitrile (high boilers) are separated out. Process flow diagrams are presented.

IT Nitriles, processes

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (aromatic, quench solvents; in a catalytic ammoxidn.-

## CAS ONLINE PRINTOUT

hydrogenation method for the manufacture of xylylenediamine from xylene)

IT Aromatic hydrocarbons, processes  
Nitriles, processes  
RL: EPR (Engineering process); NUU (Other use, unclassified); PEP  
(Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(quench solvents; in a catalytic ammoxidn.-hydrogenation  
method for the manufacture of xylylenediamine from xylene)

IT 17300-02-6P, o-Xylylenediamine  
RL: EPR (Engineering process); IMF (Industrial manufacture); PEP  
(Physical, engineering or chemical process); PREP (Preparation); PROC  
(Process)  
(catalytic ammoxidn.-hydrogenation method for the manufacture of  
xylylenediamine from xylene)

IT 91-15-6P, Phthalonitrile 626-17-5P, Isophthalonitrile 1477-55-0P  
, m-Xylylenediamine  
RL: EPR (Engineering process); IMF (Industrial manufacture); PEP  
(Physical, engineering or chemical process); RCT (Reactant); PREP  
(Preparation); PROC (Process); RACT (Reactant or reagent)  
(catalytic ammoxidn.-hydrogenation method for the manufacture of  
xylylenediamine from xylene)

IT 100-47-0, Benzonitrile, processes 872-50-4, NMP, processes 25550-22-5,  
Methylbenzonitrile  
RL: EPR (Engineering process); NUU (Other use, unclassified); PEP  
(Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(quench solvent; in a catalytic ammoxidn.-hydrogenation  
method for the manufacture of xylylenediamine from xylene)

L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:260011 CAPLUS

DN 142:338158

TI Ammoxidation and hydrogenation method for producing o-xylylenediamine from  
o-xylene

IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck,  
Alexander

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005026102	A1	20050324	WO 2004-EP9883	20040904
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10341612	A1	20050428	DE 2003-10341612	20030910
	EP 1663943	A1	20060607	EP 2004-764834	20040904
	EP 1663943	B1	20061227		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	CN 1849292	A	20061018	CN 2004-80026112	20040904
	AT 349415	T	20070115	AT 2004-764834	20040904

## CAS ONLINE PRINTOUT

JP 2007505066 T 20070308 JP 2006-525727 20040904  
US 2007088178 A1 20070419 US 2006-571615 20060310 <--  
PRAI DE 2003-10341612 A 20030910  
WO 2004-EP9883 W 20040904

OS CASREACT 142:338158

AB A method for producing xylylenediamine comprises: ammoxidn. of o-xylene to form phthalonitrile, where the vaporous product of this ammoxidn. stage is directly brought into contact with a liquid organic solvent (quench); products having a b.p. higher than that of phthalonitrile (high boilers) are separated out from the obtained quench solution or suspension; and hydrogenation of the phthalonitrile into o-xylylenediamine. The organic solvent used for the quench is N-methyl-2-pyrrolidone (NMP). After separating out the high boilers and before the hydrogenation, NMP and/or products having a b.p. which is lower than that of phthalonitrile (low boilers) are partially or completely separated out, and the phthalodinitrile for the hydrogenation step is dissolved or suspended in an organic solvent or in liquid ammonia; a process flow diagram is presented.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005026102	A1	20050324	WO 2004-EP9883	20040904
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10341612	A1	20050428	DE 2003-10341612	20030910
EP 1663943	A1	20060607	EP 2004-764834	20040904
EP 1663943	B1	20061227		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1849292	A	20061018	CN 2004-80026112	20040904
AT 349415	T	20070115	AT 2004-764834	20040904
JP 2007505066	T	20070308	JP 2006-525727	20040904
US 2007088178	A1	20070419	US 2006-571615	20060310 <--

AB A method for producing xylylenediamine comprises: ammoxidn. of o-xylene to form phthalonitrile, where the vaporous product of this ammoxidn. stage is directly brought into contact with a liquid organic solvent (quench); products having a b.p. higher than that of phthalonitrile (high boilers) are separated out from the obtained quench solution or suspension; and hydrogenation of the phthalonitrile into o-xylylenediamine. The organic solvent used for the quench is N-methyl-2-pyrrolidone (NMP). After separating out the high boilers and before the hydrogenation, NMP and/or products having a b.p. which is lower than that of phthalonitrile (low boilers) are partially or completely separated out, and the phthalodinitrile for the hydrogenation step is dissolved or suspended in an organic solvent or in liquid ammonia; a process flow diagram is presented.

IT 1477-55-0P, m-Xylylenediamine 17300-02-6P,  
o-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(ammoxidn. and hydrogenation method for producing o-xylylenediamine from o-xylene)

## CAS ONLINE PRINTOUT

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN.  
AN . 2005:260009 CAPLUS  
DN 142:338156  
TI Catalytic ammoxidation-hydrogenation method for producing xylylenediamines  
from xylenes  
IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck,  
Alexander  
PA BASF Aktiengesellschaft, Germany  
SO PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005026100	A1	20050324	WO 2004-EP9881	20040904
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10341632	A1	20050428	DE 2003-10341632	20030910

PRAI DE 2003-10341632 A 20030910

OS CASREACT 142:338156

AB A method is described for producing xylylenediamine comprising: ammoxidn. of xylene into phthalodinitrile and hydrogenation of the phthalodinitrile, whereby the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalodinitrile (quench); constituents having a b.p. higher than that of phthalodinitrile (high boilers) are separated out from the obtained quench solution or suspension or phthalodinitrile melt; after separating out the high boilers and before the hydrogenation, constituents having a b.p. lower than that of phthalodinitrile (light boilers) are separated out, and the hydrogenation of the phthalodinitrile is carried out in the presence of ammonia and in the absence of an organic solvent. Process flow diagrams are presented.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A method is described for producing xylylenediamine comprising: ammoxidn. of xylene into phthalodinitrile and hydrogenation of the phthalodinitrile, whereby the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalodinitrile (quench); constituents having a b.p. higher than that of phthalodinitrile (high boilers) are separated out from the obtained quench solution or suspension or phthalodinitrile melt; after separating out the high boilers and before the hydrogenation, constituents having a b.p. lower than that of phthalodinitrile (light boilers) are separated out, and the hydrogenation of the phthalodinitrile is carried out in the presence of ammonia and in the absence of an organic solvent. Process flow diagrams are presented.

IT 1477-55-0P, 1,3-Xylylenediamine 17300-02-6P,  
1,2-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP  
(Physical, engineering or chemical process); PREP (Preparation); PROC

(Process)

(catalytic ammoxidn.-hydrogenation method for producing  
xylylenediamines from xylenes)

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:680623 CAPLUS

DN 121:280623

TI Photoionophores derived from crown ether polycarboxylic acids: synthesis,  
ion binding, and spectroscopic characterization

AU Fyles, Thomas M.; Suresh; Valia Veettil

CS Dep. Chem., Univ. Victoria, Victoria, BC, V8W 3P6, Can.

SO Canadian Journal of Chemistry (1994), 72(5), 1246-53

CODEN: CJCHAG; ISSN: 0008-4042

DT Journal

LA English

AB Three types of potential photoionophores based on polycarboxylic acid crown ethers were prepared, and their cation complexation behaviors and spectroscopic properties were surveyed. The first type were neutral macropolycyclic hosts prepared by capping across the faces of the crown ether with aromatic diamine chromophores. The second were bis-crown ether carboxylates bearing a bridging aromatic chromophore. The third type appended an addnl. chromophore-donor site on the crown ether carboxylic acid framework. Cation complexation was examined by potentiometric titration. The neutral ligands were rather poor hosts for alkali metal cations. The other two types of crown ether carboxylates showed a combination of size selectivity and electrostatic stabilization, leading to significant and selective ion binding in water. Ligands of the third type also exhibited cation-dependent absorption spectra in neutral and basic aqueous solution. No significant alkali metal or alkaline earth cation-induced perturbation of the emission spectra was uncovered, but a sodium- and cesium-dependent long wavelength emission enhancement was observed in one of the neutral ligand systems.

IT Fluorescence quenching

(of photoionophores based on polycarboxylic acid crown ethers by metal ions)

IT 14127-61-8, Calcium(2+), reactions 14302-87-5, Mercury(2+), reactions  
15158-11-9, Copper(2+), reactions 17341-24-1, Lithium(1+), reactions  
17341-25-2, Sodium(1+), reactions 18459-37-5, Cesium(1+), reactions  
22537-38-8, Rubidium(1+), reactions 22537-39-9, Strontium(2+), reactions  
22537-48-0, Cadmium(2+), reactions 22541-12-4, Barium(2+), reactions  
24203-36-9, Potassium(1+), reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(quenching of fluorescence and complexation with  
photoionophores based on polycarboxylic acid crown ethers)

IT 95-55-6, 2-Aminophenol 1477-55-0, 1,3-Benzenedimethanamine

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in synthesis of photoionophores based on polycarboxylic acid crown ethers)

L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:514908 CAPLUS

DN 113:114908

TI The chemistry of bile pigments. LXXXV. Preparation and luminescence of  
hetero-bichromophore oligopyrrol-systems

AU Falk, Heinz; Grubmayr, Karl; Marko, Martha

CS Inst. Chem., Johannes-Kepler-Univ., Linz, A-4040, Austria

SO Monatshefte fuer Chemie (1990), 121(2-3), 209-19

CODEN: MOCMB7; ISSN: 0026-9247

DT Journal

LA German

AB Systems consisting of a bilindione or dipyrnone chromophore and a



covalently attached, but nonconjugated, fluorescing naphthyl, anthranyl, and indolyl residue were prepared and their luminescence properties measured. Excitation energy is very effectively quenched by the dipyrrene radiationless deexcitation channel of bilins as well as by the photodiastereomerization mode of dipyrrenone fragments. A Forster type energy transfer mechanism is inferred from intermol. Stern-Volmer kinetics in solvents of different viscosity.

AB Systems consisting of a bilindione or dipyrrenone chromophore and a covalently attached, but nonconjugated, fluorescing naphthyl, anthranyl, and indolyl residue were prepared and their luminescence properties measured. Excitation energy is very effectively quenched by the dipyrrene radiationless deexcitation channel of bilins as well as by the photodiastereomerization mode of dipyrrenone fragments. A Forster type energy transfer mechanism is inferred from intermol. Stern-Volmer kinetics in solvents of different viscosity.

IT 1477-55-0P, 1,3-Benzenedimethanamine 129111-98-4P 129111-99-5P  
129112-03-4P 129112-05-6P 129112-08-9P 129133-59-1P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and fluorescence of)

L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1961:144682 CAPLUS

DN 55:144682

OREF 55:27488i,27489a-c

TI Formation of covalent linkages between two protein molecules

AU Schick, Anita F.; Singer, S. J.

CS Yale Univ.

SO Journal of Biological Chemistry (1961), 236, 2477-85

CODEN: JBCHA3; ISSN: 0021-9258

DT Journal

LA Unavailable

AB cf. J. Biophys. Biochem. Cytol. 9, 519(1961). The purpose of this study was to link 2 protein mols. in a binary soluble conjugate by stable covalent bonds, and at the same time to retain the relatively easily destroyed activity of antibody when it was one of the pair of proteins in a conjugate. Conjugates of bovine serum albumin (I) with bovine  $\gamma$ -globulin (II), and of rabbit  $\gamma$ -globulin (containing antibody), were prepared by the use of a number of diisocyanates. The presence of conjugates was determined electrophoretically. In order to preserve the activity of antibody, a 2-stage reaction was used. The antibody (or II) was added, not directly to the diisocyanate, which inactivated it, but to an intermediate 1st formed by the reaction of the diisocyanate with ferritin (or I). By the addition of an isocyanate-quenching agent, e.g., ethylenediamine, to the intermediate, it was possible to determine whether isocyanate groups introduced on the modified ferritin or I were essential for the subsequent conjugation to the  $\gamma$ -globulin. By these methods it was shown that conjugates prepared with m-xylylene diisocyanate as coupling agent were partly covalently and partly noncovalently linked. A surprisingly large number of the xylylene residues was attached to the intermediate, but very few isocyanate groups were available for coupling to  $\gamma$ -globulin. With a diisocyanate containing 2 functions, e.g., toluene-2,4-diisocyanate, conditions were found for producing exclusively covalently linked conjugates in good yield. With the I-II system, electrophoresis and ultracentrifuge data showed that the conjugates were mainly of the 1 albumin:1 globulin and 2 albumin:1 globulin types, but only negligible amts. of larger conjugates were formed.

AB cf. J. Biophys. Biochem. Cytol. 9, 519(1961). The purpose of this study was to link 2 protein mols. in a binary soluble conjugate by stable covalent bonds, and at the same time to retain the relatively easily destroyed activity of antibody when it was one of the pair of proteins in a

CAS ONLINE PRINTOUT

conjugate. Conjugates of bovine serum albumin (I) with bovine  $\gamma$ -globulin (II), and of rabbit  $\gamma$ -globulin (containing antibody), were prepared by the use of a number of diisocyanates. The presence of conjugates was determined electrophoretically. In order to preserve the activity of antibody, a 2-stage reaction was used. The antibody (or II) was added, not directly to the diisocyanate, which inactivated it, but to an intermediate 1st formed by the reaction of the diisocyanate with ferritin (or I). By the addition of an isocyanate-quenching agent, e.g., ethylenediamine, to the intermediate, it was possible to determine whether isocyanate groups introduced on the modified ferritin or I were essential for the subsequent conjugation to the  $\gamma$ -globulin. By these methods it was shown that conjugates prepared with m-xylylene diisocyanate as coupling agent were partly covalently and partly noncovalently linked. A surprisingly large number of the xylylene residues was attached to the intermediate, but very few isocyanate groups were available for coupling to  $\gamma$ -globulin. With a diisocyanate containing 2 functions, e.g., toluene-2,4-diisocyanate, conditions were found for producing exclusively covalently linked conjugates in good yield. With the I-II system, electrophoresis and ultracentrifuge data showed that the conjugates were mainly of the 1 albumin:1 globulin and 2 albumin:1 globulin types, but only negligible amts. of larger conjugates were formed.

IT 107-15-3P, Ethylenediamine 1477-55-0P, m-Xylene- $\alpha,\alpha'$ -diamine

RL: PREP (Preparation)

(effect on coupling agents in formation of protein conjugates)

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## CAS ONLINE PRINTOUT

&gt; d his

(FILE 'HOME' ENTERED AT 09:40:13 ON 20 JUN 2007)

FILE 'REGISTRY' ENTERED AT 09:40:28 ON 20 JUN 2007

E META.XYLYLENE/CN  
E XYLYLENEDIAMINE/CNL1 1 S E3  
E .META.XYLYLENE/CN

FILE 'CAPLUS' ENTERED AT 09:42:59 ON 20 JUN 2007

E US20070088178/PN

L2 1 S E3  
SELECT RN L2 1

FILE 'REGISTRY' ENTERED AT 09:43:31 ON 20 JUN 2007

L3 17 S E1-E17

FILE 'REGISTRY' ENTERED AT 09:47:30 ON 20 JUN 2007

L4 1 S 17300-02-6  
L5 1 S 1477-55-0/RN  
L6 1 S 872-50-4/RN

FILE 'CAPLUS' ENTERED AT 09:50:04 ON 20 JUN 2007

L7 1462 S L2 OR L4 OR L5  
L8 203105 S QUENCH?  
L9 8 S L8 AND L7  
L10 12 S L7 AND L6

=&gt; d bib abs kwic 1-12

L10 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:281745 CAPLUS

DN 146:316608

TI Hydrogenation process and catalysts for the preparation of amino compounds  
containing an aromatic ring from aromatic dinitriles

IN Okamoto, Atsushi; Watanabe, Toshio

PA Mitsubishi Gas Chemical Company, Inc., Japan

SO Eur. Pat. Appl., 15pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1762561	A1	20070314	EP 2006-119525	20060825
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,				
	IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,				
	BA, HR, MK, YU				
	JP 2007099758	A	20070419	JP 2006-233466	20060830
	CN 1927457	A	20070314	CN 2006-10127697	20060907
	US 2007060774	A1	20070315	US 2006-517360	20060908
PRAI	JP 2005-261558	A	20050909		

AB An aromatic dinitrile (e.g., isophthalonitrile) is hydrogenated in an amide solvent (e.g., DMF) in the presence of a solid catalyst and in the absence of ammonia to produce an aromatic ring-containing amino compound by reducing at least one cyano group to aminomethyl group. The solid catalyst is a supported palladium catalyst in which palladium is substantially present on the outer surface of carrier and in a surface layer within a depth of 200  $\mu$ m from the outer surface. Using such a solid catalyst, the aromatic dinitrile compound is efficiently hydrogenated to the aromatic ring-containing

## CAS ONLINE PRINTOUT

amino compound [e.g., 1,3-bis(aminomethyl)benzene] under mild conditions.  
 RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 1477-55-0P, 1,3-Bis(aminomethyl)benzene 10406-24-3P,  
 3-(Aminomethyl)benzonitrile

RL: IMP (Industrial manufacture); SPN (Synthetic preparation); PREP  
 (Preparation)

(hydrogenation process and catalysts for the preparation of amino compds.  
 containing an aromatic ring from aromatic dinitriles)

IT 68-12-2, Dmf, uses 80-73-9, 1,3-Dimethyl-2-imidazolidinone 127-19-5,  
 Dma 872-50-4, NMP, uses

RL: NUU (Other use, unclassified); USES (Uses)

(solvent; hydrogenation process and catalysts for the preparation of amino  
 compds. containing an aromatic ring from aromatic dinitriles)

L10 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:919169 CAPLUS

DN 145:324974

TI Positive photosensitive resin composition

IN Fujii, Hirofumi; Saito, Makoto; Ohnishi, Kenji

PA Nitto Denko Corporation, Japan

SO U.S. Pat. Appl. Publ., 8pp.

CODEN: USXXCO

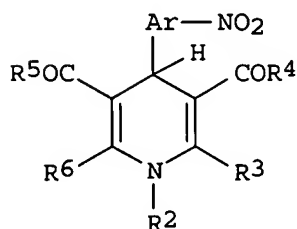
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2006199102	A1	20060907	US 2006-367582	20060306
	JP 2006285193	A	20061019	JP 2005-306078	20051020
	KR 2006097573	A	20060914	KR 2006-7538	20060125
	CN 1831648	A	20060913	CN 2006-10051588	20060306
	EP 1701210	A1	20060913	EP 2006-4599	20060307
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
PRAI	JP 2005-62889	A	20050307		
	JP 2005-306078	A	20051020		

GI



I

AB A pos. photosensitive resin composition comprises (A) a polyamic acid, (B) a 1,4-dihydropyridine derivative represented by the general formula I (R2 = a monovalent organic group; R3-6 = hydrogen or a monovalent organic group; and Ar-NO2 is an aromatic hydrocarbon group having a nitro group at ortho-position), and (C) an amine compound

IT 101-80-4, 4,4'-Diaminodiphenylether 106-50-3, p-Phenylenediamine, uses  
 539-48-0, p-Xylylenediamine 872-50-4, N-Methyl-2-pyrrolidone,

## CAS ONLINE PRINTOUT

uses 1477-55-0, m-Xylylenediamine 97917-34-5, X-22-161A  
209664-76-6, 1-Ethyl-3,5-dimethoxycarbonyl-4-(2-nitrophenyl)-1,4-  
dihydropyridine

RL: TEM (Technical or engineered material use); USES (Uses)  
(pos. photosensitive resin composition containing)

L10 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:802453 CAPLUS

DN 146:385486

TI Transport properties of polyimides containing cucurbit[6]uril

AU Friess, K.; Sipek, M.; Hynek, V.; Sysel, P.; Koptikova, T.; Sindelar, V.

CS Department of Physical Chemistry, Institute of Chemical Technology in  
Prague, Prague, 166 28, Czech Rep.

SO Desalination (2006), 200(1-3), 236-238

CODEN: DSLNAH; ISSN: 0011-9164

PB Elsevier B.V.

DT Journal

LA English

AB Cucurbit[6]uril (CB6) is a hexameric macro-cyclic compound self-assembled  
from an acid-catalyzed condensation of glycoluril and formaldehyde.  
Permeation and sorption measurements showed much information about the  
effect of macro-cyclic CB6 on PI membrane transport properties. Growth of  
CB6 content inside the PI matrix led to almost linear increase of  
permeability of polyimide membranes for gases or vapors.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 539-48-0, 1,4-Xylylenediamine 872-50-4, 1-Methyl-2-pyrrolidone,  
processes 1477-55-0, 1,3-Xylylenediamine 1823-59-2,  
4,4'-Oxydiphthalic anhydride

RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical  
process); PROC (Process); USES (Uses)

(polyimide membrane synthesis from; transport properties of polyimides  
containing cucurbit[6]uril and their use in polymeric separation membranes)

L10 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:504783 CAPLUS

DN 145:83205

TI Process for preparation of bismaleimide derivatives

IN Yuan, Jun; Zeng, Ying

PA Wuhan Institute of Chemical Technology, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1775775	A	20060524	CN 2005-10019907	20051129
PRAI	CN 2005-10019907		20051129		

OS CASREACT 145:83205

AB This invention pertains to a method for producing bismaleimide (BMI),  
which comprises carrying out dehydration ring-closure reaction of diamine  
and maleic anhydride at a molar ratio of 2.4-2.0 at 25-150°C in  
homogeneous organic solvent (e.g., benzene, toluene, xylene,  
N,N-dimethylformamide, dimethylacetamide, formamide, DMSO,  
N-methylpyrrolidone, acetone, or mixture thereof) in presence of catalyst  
(such as sulfuric acid, acetic acid, or phosphoric acid) and polymerization  
inhibitor (polyphenol or phosphite ester); cooling to 80-100°C;  
adding reaction liquid into hot water at 50-100°C; standing; precipitating  
the organic phase in water; vacuum filtering; wash with ethanol, NaHCO<sub>3</sub>  
aqueous

## CAS ONLINE PRINTOUT

solution and water; drying to obtain crude BMI; dissolving in toluene; washing with hot water at 50-100°C; precipitating the organic phrase in water; vacuum filtering; washing; and drying to obtain BMI product.

IT 67-64-1, Acetone, uses 67-68-5, Dimethyl sulfoxide, uses 68-12-2, N,N-Dimethylformamide, uses 71-43-2, Benzene, uses 75-12-7, Formamide, uses 108-88-3, Toluene, uses 127-19-5, Dimethylacetamide 872-50-4, N-Methylpyrrolidone, uses 1330-20-7, Xylene, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (preparation of bismaleimide derivs.)  
 IT 101-77-9 108-31-6, Maleic anhydride, reactions 1477-55-0, 1,3-Benzenedimethanamine  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of bismaleimide derivs.)

L10 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:283452 CAPLUS

DN 142:357052

TI Ammoxidation-hydrogenation method for producing 1,2-xylylenediamine from o-xylene

IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck, Alexander

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005028417	A1	20050331	WO 2004-EP9568	20040827
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10341613	A1	20050414	DE 2003-10341613	20030910
	EP 1663942	A1	20060607	EP 2004-764542	20040827
	EP 1663942	B1	20070404		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	CN 1849295	A	20061018	CN 2004-80026132	20040827
	AT 358665	T	20070415	AT 2004-764542	20040827
	US 2007088179	A1	20070419	US 2006-571584	20060310
PRAI	DE 2003-10341613	A	20030910		
	WO 2004-EP9568	W	20040827		

OS CASREACT 142:357052

AB A method for producing 1,2-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalodinitrile where the vaporous product of the ammoxidn. step is brought into direct contact with N-methyl-2-pyrrolidone as solvent (quench stage); and hydrogenation of the phthalodinitrile in the quench solution or suspension. A process flow diagram is presented.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 1477-55-0P, 1,3-Xylylenediamine 17300-02-6P, 1,2-Xylylenediamine

## CAS ONLINE PRINTOUT

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)  
(ammoxidn.-hydrogenation method for producing 1,2-xylylenediamine from o-xylene)

IT 872-50-4, NMP, processes

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(solvent; ammoxidn.-hydrogenation method for producing 1,2-xylylenediamine from o-xylene)

L10 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:260013 CAPLUS

DN 142:338160

TI Catalytic ammoxidation-hydrogenation method for the manufacture of xylylenediamine from xylene

IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck, Alexander

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005026104	A1	20050324	WO 2004-EP9885	20040904
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10341614	A1	20050428	DE 2003-10341614	20030910
	EP 1663945	A1	20060607	EP 2004-764836	20040904
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	CN 1849291	A	20061018	CN 2004-80026111	20040904
	JP 2007505068	T	20070308	JP 2006-525729	20040904
	US 2007010693	A1	20070111	US 2006-569985	20060228
PRAI	DE 2003-10341614	A	20030910		
	WO 2004-EP9885	W	20040904		

OS CASREACT 142:338160

AB A method for producing o-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalodinitrile and hydrogenation of the phthalodinitrile, whereby the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalodinitrile (quench); constituents having a b.p. lower than that of phthalodinitrile (low boilers) are partially or completely separated out from the obtained quench solution or suspension or phthalodinitrile melt, and; after separating out

the low boilers and before the hydrogenation, products having a b.p. higher than that of phthalodinitrile (high boilers) are separated out.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 17300-02-6P, o-Xylylenediamine

## CAS ONLINE PRINTOUT

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT 91-15-6P, Phthalonitrile 626-17-5P, Isophthalonitrile 1477-55-0P, m-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT 100-47-0, Benzonitrile, processes 872-50-4, NMP, processes 25550-22-5, Methylbenzonitrile

RL: EPR (Engineering process); NUJ (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (quench solvent; in a catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

L10 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:260012 CAPLUS

DN 142:338159

TI Catalytic ammoxidation-hydrogenation method for the manufacture of xylylenediamine from xylene

IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck, Alexander

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005026103	A1	20050324	WO 2004-EP9884	20040904
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10341633	A1	20050428	DE 2003-10341633	20030910
	EP 1663944	A1	20060607	EP 2004-764835	20040904
	EP 1663944	B1	20070307		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	CN 1849294	A	20061018	CN 2004-80026131	20040904
	JP 2007505067	T	20070308	JP 2006-525728	20040904
	AT 356109	T	20070315	AT 2004-764835	20040904
PRAI	DE 2003-10341633	A	20030910		
	WO 2004-EP9884	W	20040904		

OS CASREACT 142:338159

AB A method for producing o-xylylenediamine comprises: ammoxidn. of o-xylene to form phthalonitrile and hydrogenation of the phthalonitrile, where the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalonitrile (quench);



## CAS ONLINE PRINTOUT

constituents having a b.p. lower than that of phthalonitrile (low boilers) are partially or completely separated out from the obtained quench solution or suspension or phthalonitrile melt; and, before the hydrogenation of the phthalodinitrile, no products having a b.p. higher than that of phthalonitrile (high boilers) are separated out. Process flow diagrams are presented.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 17300-02-6P, o-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT 91-15-6P, Phthalonitrile 626-17-5P, Isophthalonitrile 1477-55-0P, m-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

IT 100-47-0, Benzonitrile, processes 872-50-4, NMP, processes

25550-22-5, Methylbenzonitrile

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (quench solvent; in a catalytic ammoxidn.-hydrogenation method for the manufacture of xylylenediamine from xylene)

L10 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:260011 CAPLUS

DN 142:338158

TI Ammoxidation and hydrogenation method for producing o-xylylenediamine from o-xylene

IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck, Alexander

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005026102	A1	20050324	WO 2004-EP9883	20040904
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10341612	A1	20050428	DE 2003-10341612	20030910
EP 1663943	A1	20060607	EP 2004-764834	20040904
EP 1663943	B1	20061227		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1849292	A	20061018	CN 2004-80026112	20040904

*appeals work*

## CAS ONLINE PRINTOUT

AT 349415	T	20070115	AT 2004-764834	20040904
JP 2007505066	T	20070308	JP 2006-525727	20040904
US 2007088178	A1	20070419	US 2006-571615	20060310 <--
PRAI DE 2003-10341612	A	20030910		
WO 2004-EP9883	W	20040904		

OS CASREACT 142:338158

AB A method for producing xylylenediamine comprises: ammoxidn. of o-xylene to form phthalonitrile, where the vaporous product of this ammoxidn. stage is directly brought into contact with a liquid organic solvent (quench); products having a b.p. higher than that of phthalonitrile (high boilers) are separated out from the obtained quench solution or suspension; and hydrogenation of the phthalonitrile into o-xylylenediamine. The organic solvent used for the quench is N-methyl-2-pyrrolidone (NMP). After separating out the high boilers and before the hydrogenation, NMP and/or products having a b.p. which is lower than that of phthalonitrile (low boilers) are partially or completely separated out, and the phthalodinitrile for the hydrogenation step is dissolved or suspended in an organic solvent or in liquid ammonia; a process flow diagram is presented.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005026102	A1	20050324	WO 2004-EP9883	20040904
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10341612	A1	20050428	DE 2003-10341612	20030910
EP 1663943	A1	20060607	EP 2004-764834	20040904
EP 1663943	B1	20061227		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1849292	A	20061018	CN 2004-80026112	20040904
AT 349415	T	20070115	AT 2004-764834	20040904
JP 2007505066	T	20070308	JP 2006-525727	20040904
US 2007088178	A1	20070419	US 2006-571615	20060310 <--

IT 1477-55-0P, m-Xylylenediamine 17300-02-6P,  
o-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(ammoxidn. and hydrogenation method for producing o-xylylenediamine from o-xylene)

IT 872-50-4, NMP, processes

RL: EPR (Engineering process); NUJ (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (solvent; ammoxidn. and hydrogenation method for producing o-xylylenediamine from o-xylene)

L10 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:260010 CAPLUS

DN 142:338157

TI Catalytic hydrogenation method for producing xylylenediamine from phthalonitrile in N-methyl-2-pyrrolidone solvent

## CAS ONLINE PRINTOUT

IN Wenz, Kirsten; Jourdan, Sabine; Hugo, Randolph; Melder, Johann-peter;  
Preiss, Thomas

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005026101	A1	20050324	WO 2004-EP9882	20040904
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10341615	A1	20050428	DE 2003-10341615	20030910
PRAI	DE 2003-10341615	A	20030910		

OS CASREACT 142:338157

AB A method for producing xylylenediamine by hydrogenating phthalodinitrile in the presence of a heterogeneous catalyst is described in which the hydrogenation is conducted in the presence of N-methyl-2-pyrrolidone solvent.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 1477-55-0P, m-Xylylenediamine 17300-02-6P,  
1,2-Xylylenediamine  
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); PREP (Preparation); PROC (Process)  
(catalytic hydrogenation method for producing xylylenediamine from phthalonitrile in N-methyl-2-pyrrolidone solvent)

IT 872-50-4, N-Methyl-2-pyrrolidone, processes  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)  
(solvent; catalytic hydrogenation method for producing xylylenediamine from phthalonitrile in N-methyl-2-pyrrolidone solvent)

L10 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:260009 CAPLUS

DN 142:338156

TI Catalytic ammoxidation-hydrogenation method for producing xylylenediamines from xylenes

IN Hugo, Randolph; Jourdan, Sabine; Wenz, Kirsten; Preiss, Thomas; Weck, Alexander

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005026100	A1	20050324	WO 2004-EP9881	20040904
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				

## CAS ONLINE PRINTOUT

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
SN, TD, TG

DE 10341632 A1 20050428 DE 2003-10341632 20030910

PRAI DE 2003-10341632 A 20030910

OS CASREACT 142:338156

AB A method is described for producing xylylenediamine comprising: ammoxidn. of xylene into phthalodinitrile and hydrogenation of the phthalodinitrile, whereby the vaporous product of the ammoxidn. stage is directly brought into contact with a liquid organic solvent or with melted phthalodinitrile (quench); constituents having a b.p. higher than that of phthalodinitrile (high boilers) are separated out from the obtained quench solution or suspension

or phthalodinitrile melt; after separating out the high boilers and before the hydrogenation, constituents having a b.p. lower than that of phthalodinitrile (light boilers) are separated out, and the hydrogenation of the phthalodinitrile is carried out in the presence of ammonia and in the absence of an organic solvent. Process flow diagrams are presented.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 1477-55-0P, 1,3-Xylylenediamine 17300-02-6P,  
1,2-Xylylenediamine

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(catalytic ammoxidn.-hydrogenation method for producing xylylenediamines from xylenes)

IT 100-47-0, Benzonitrile, processes 872-50-4, NMP, processes 25550-22-5, MethylBenzonitrile

RL: EPR (Engineering process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (extraction solvent; in a catalytic ammoxidn.-hydrogenation method for producing xylylenediamines from xylenes)

L10 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:691137 CAPLUS

DN 131:311775

TI Curable composition and cured article thereof

IN Kinsho, Toshihiko

PA Sanyo Chemical Industries Ltd., Japan

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

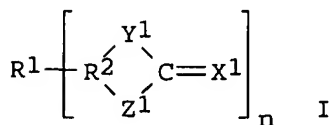
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9954373	A1	19991028	WO 1999-JP1519	19990325
	W: CN, DE, JP, KR, US				
	DE 19983141	T0	20010322	DE 1999-19983141	19990325
	DE 19983141	B4	20060706		
	CN 1133678	B	20040107	CN 1999-805119	19990325
	JP 3866037	B2	20070110	JP 2000-544711	19990325
	US 6495653	B1	20021217	US 2000-673374	20001208
PRAI	JP 1998-124183	A	19980417		

## CAS ONLINE PRINTOUT

JP 1999-32229      A      19990210  
 WO 1999-JP1519    W      19990325

GI



AB A curable composition which has curability even at temps. as low as -20 to 5°C, has a low viscosity at a low temperature, and gives a cured article satisfactory in material properties such as water resistance, chemical resistance, and mech. properties. The composition comprises (A) a heterocyclic compound represented by general formula (I), (B) a compound having per mol. two or more electrophilic groups reactive with a thiol or -S- group, and (C) a compound having two or more nucleophilic groups per mol. In said formula, n is an integer of 1 to 10; X<sup>1</sup>, Y<sup>1</sup>, and Z<sup>1</sup> each independently is oxygen or sulfur; R<sup>1</sup> is either a residue of (D) a compound having a cyclic ether group or hydrogen; and R<sup>2</sup> is a C2-10 hydrocarbon group.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 79-41-4, Methacrylic acid, uses 107-15-3, 1,2-Ethanediamine, uses 108-95-2, Phenol, uses 112-24-3 123-31-9, 1,4-Benzenediol, uses 141-43-5, Monoethanolamine, uses 603-35-0, Triphenylphosphine, uses 614-45-9, tert-Butylperoxy benzoate 872-50-4, N-Methylpyrrolidone, uses 1477-55-0, 1,3-Benzenedimethanamine 25068-38-6, Epikote 828 25154-52-3, Nonylphenol 26444-72-4, Tris(dimethylaminomethylphenol) 101359-87-9, Capcure 3-800 104673-55-4, React CA-101

RL: TEM (Technical or engineered material use); USES (Uses)  
 (for preparing curable composition)

L10 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:59286 CAPLUS

DN 110:59286

TI Reaction injection molding of polyurethane-urea elastomers

IN Saito, Yoichi; Watanabe, Takashi

PA Asahi Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63230723	A	19880927	JP 1987-64251	19870320
PRAI	JP 1987-64251		19870320		

AB In the title process, a mixture of high-mol.-weight active H-containing compds.,

catalysts, blowing agents, polyisocyanates, and chain extenders having mol. weight ≤500 was used. The chain extenders are obtained by the addition of polyamines with cyclic carbonates, amides, or esters. Thus, a molding prepared from polyoxyethylene-oxypropylene glycerin ether, a reaction product (A) of 2,5-diaminochlorobenzene and ethylene carbonate, Bu<sub>2</sub>Sn dilaurate, and modified MDI prepolymer had 50% tensile modulus 135 kg/cm<sup>2</sup>, tensile strength 305 kg/cm<sup>2</sup>, elongation at break 320%, and heat sag 1.5 mm, vs. 142, 248, 247, and 29, resp., for a molding similarly prepared using ethylene glycol and triethylenediamine in place of the A.

CAS ONLINE PRINTOUT

IT 95-80-7D, 2,4-Toluenediamine, reaction products with methylpyrrolidone  
96-49-1D, Ethylene carbonate, reaction products with diaminochlorobenzene  
502-44-3D,  $\epsilon$ -Caprolactone, reaction products with toluenediamine  
615-66-7D, reaction products with ethylene carbonate 872-50-4D,  
reaction products with toluenediamine 1477-55-0D,  
1,3-Benzenedimethanamine, reaction products with ethylene carbonate  
RL: USES (Uses)  
(chain extenders, for polyurethane urea reaction injection molding)

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